

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2016 Levee Maintenance Deficiency Summary Report**

**Overall LMA & Unit Ratings, including DWR Erosion Survey**

***San Joaquin River Basin***

<b>RD2091</b>	Overall LMA Rating	Total LMA Miles	* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.					
<b>Reclamation District No. 2091 Chase</b>	<b>M *</b>	<b>7.51</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Trim / Thin Trees	0.02		0.02	0.27%				
Animal Control		0.01	0.04	0.53%				
Slope Stability	0.01		0.01	0.13%				
Erosion / Bank Caving	0.03	0.01	0.07	0.93%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.05	0.02		
<i>LMA Totals:</i>	0.06	0.02	0.14	1.86% *	0.05	0.02	0.00	0.00
<b>Unit No. 01 San Joaquin River RB</b>	Overall Unit Rating	Total Unit Miles	* Overall Unit Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall Unit Rating is M instead of A.					
<b>RD2091</b>	<b>M *</b>	<b>7.46</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Trim / Thin Trees	0.01		0.01	0.13%				
Animal Control		0.01	0.04	0.54%				
Slope Stability	0.01		0.01	0.13%				
Erosion / Bank Caving	0.03	0.01	0.07	0.94%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.04	0.02		
<i>Unit Totals:</i>	0.05	0.02	0.13	1.74% *	0.04	0.02	0.00	0.00
<b>Unit No. 02 San Joaquin River NA</b>	Overall Unit Rating	Total Unit Miles						
<b>RD2091</b>	<b>M</b>	<b>0.05</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Trim / Thin Trees	0.01		0.01	20.00%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.01			
<i>Unit Totals:</i>	0.01	0.00	0.01	20.00%	0.01	0.00	0.00	0.00

**Flood Control Project Maintenance  
Levee Inspections**  
**LMA District Cover Sheet**  
**Fall 2016 Levee Inspection Results**

**Reclamation District No. 2091 Chase**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)			M *	

\*\* Non-receipt of Summer or Winter Inspection  
Reports may effect overall annual rating.

\* Overall LMA Threshold Percent is less than  
10.00%; however, U Rated Miles are present,  
so the Overall LMA Rating is M instead of A.

†	<p><u>SPRING INSPECTIONS:</u> Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.</p> <p><u>FALL INSPECTIONS:</u> The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.</p>
---	---

Comments


**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2016 Levee Inspection Results**

**Reclamation District No. 2091 Chase**

Waterway			Bank	Unit Miles
Unit No. 01 San Joaquin River			Right	7.46
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			M *	
Date of Inspection	4/26/2016 - 4/26/2016		10/26/2016 - 10/26/2016	
DWR Inspector	Richard Willoughby		Richard Willoughby	
Accompanied By	Mike Alves RD 2091		Mike Alves RD 2091	

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

**Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- completion of the inspection
- any changes other than the results of normal maintenance
- corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

*The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.*

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	<b>0.00</b>	Rating **	A	Issue No.	<b>2</b>
LM End	<b>0.00</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals			°	°
				°	°
DWR ID	DWR_RD2091_01_s_2013_2				
Comment Code					
Inspector Comment					
The LMA has copy of O & M manual on file at district office.					

No Photos

LM Start	<b>0.00</b>	Rating **	A	Issue No.	<b>4</b>
LM End	<b>0.00</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment			°	°
				°	°
DWR ID	DWR_RD2091_01_s_2013_4				
Comment Code					
Inspector Comment					
The LMA maintains adequate flood fight supplies and equipment.					

No Photos

LM Start	<b>0.00</b>	Rating **	A	Issue No.	<b>5</b>
LM End	<b>0.00</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training			°	°
				°	°
DWR ID	DWR_RD2091_01_s_2013_5				
Comment Code					
Inspector Comment					
The LMA maintains a good working knowledge of flood response activities.					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.08	Rating **	M	Issue No.	17
LM End	0.08	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.541970 °	37.541970 °
				-121.093980 °	-121.093980 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:43207 DS_ID:23155 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned and if so should be done so properly. FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal pipe through levee 7.2 feet below crown. Slide gate in 36-inch corrugated metal pipe riser on the waterward slope. Originally included in the 1961 O&M manual. As built drawings available, Drawing # 07-04-1555: 1555/17 & 1555/55, 906+85. FS Date: 1/29/2015 2:26:31 PM					

LM Start	<b>0.08</b>	Rating **	M	Issue No.	<b>17 (cont)</b>
LM End	<b>0.08</b>	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP\_FA\_2016\_43207\_38148.jpg



Slide gate in 36-inch CMP riser on WS toe.

Photo 2 of 2 : UCIP\_FA\_2016\_43207\_38147.jpg



Slide gate in 36-inch CMP riser on WS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.10	Rating **	U	Issue No.	20
LM End	0.10	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.542030 °	37.542030 °
				-121.094370 °	-121.094370 °
DWR ID					

**Comment Code**

**Inspector Comment**

FS\_ID:50991  
DS\_ID:23156  
EP\_NO: N/A  
Repair Type: Urgent  
Crossing Status: Found  
UCIP Comments: 11/18/2016 Same as last inspection this is a non-functional crossing with no visible inlet on LS or outlet on WS. The only appurtenance found at this location is a CMP riser with a missing cover located on the WS. This crossing remains Urgent since the pipe on the WS may still be opened. According to Mike Alves, this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Pipe open on WS and slide gate has been removed. Appears abandoned and should be done so properly. (M. Alves - City of Modesto)  
FIELD\_STRUCT\_DESC: \*ABANDONED\* 24-inch corrugated metal drainage pipe through levee, 9 feet below crown. Slide gate in corrugated metal pipe (CMP) riser located on the waterside (WS) slope.  
[Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 6, September 1961, (HLM 0.07), Drawing No. 07-04-1555, sheet(s) 1555/17 and 1555/55, reference station 907+55].  
FS Date: 11/18/2016

LM Start	<b>0.10</b>	Rating **	U	Issue No.	<b>20 (cont)</b>
LM End	<b>0.10</b>	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP\_FA\_2016\_50991\_38150.jpg



36-inch CMP riser on WS slope.

Photo 2 of 2 : UCIP\_FA\_2016\_50991\_38149.jpg



Slide gate missing from open end of pipe at WS slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>N : Not Inspected/Rated</b> C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	--	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.23	Rating **	U	Issue No.	15
LM End	0.23	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.541550 °	37.541550 °
				-121.096742 °	-121.096742 °
DWR ID	DWR_RD2091_01_s_2016_15				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Caving on landward shoulder possible collapsed pipe. Caving is 34 feet long over one inch depth.					

Photo 1 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_00002.jpg



Looking west at dip on landward levee shoulder.

LM Start	<b>0.23</b>	Rating **	U	Issue No.	<b>15 (cont)</b>
LM End	<b>0.23</b>	Issue Type +	Ma	Location *	LS

Photo 2 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_00003.jpg



Looking southeast at depression along landward shoulder.

LM Start	<b>0.23</b>	Rating **	U	Issue No.	<b>15 (cont)</b>
LM End	<b>0.23</b>	Issue Type +	Ma	Location *	LS

Photo 3 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_00004.jpg



Looking south at depression along landward shoulder.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown		<b>** Rating</b> A : Acceptable                      N : Not Inspected/Rated M : Minimally Acceptable        C : Corrected U : Unacceptable                  A/W : Acceptable but Monitor & Maintain		<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
--	--	---	--	---	--

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.23	Rating **	U	Issue No.	15 (cont)	
LM End	0.23	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			37.541550 °		37.541550 °
				-121.096742 °		-121.096742 °
DWR ID	DWR_RD2091_01_s_2016_15					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						
Caving on landward shoulder possible collapsed pipe. Caving is 34 feet long over one inch depth.						

Photo 4 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_00005.jpg



Looking northwest at depression along landward shoulder.

LM Start	0.24	Rating **	U	Issue No.	21
LM End	0.24	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.541564 °	37.541564 °
				-121.096792 °	-121.096792 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50995 DS_ID:23158 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as last inspection this crossing remains Urgent the flap gate is still missing from the WS toe. According to Mike A. this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Flap gate has fallen off at WS toe. Appears abandoned and if so should be done so properly. (M. Alves - City of Modesto) FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through levee, 10 feet below crown. Flap gate located on the waterside (WS) end. Drain opening is located approximately 15 feet off the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 6, September 1961, (HLM 0.23), Drawing No. 07-04-1555, sheet(s) 1555/17 and 1555/55, reference station 915+00]. FS Date: 11/18/2016					

Photo 1 of 2 : UCIP\_FA\_2016\_50995\_38156.jpg



Pipe visible in canal on WS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.24	Rating **	U	Issue No.	21 (cont)
LM End	0.24	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.541564 °	37.541564 °
				-121.096792 °	-121.096792 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50995 DS_ID:23158 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as last inspection this crossing remains Urgent the flap gate is still missing from the WS toe. According to Mike A. this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Flap gate has fallen off at WS toe. Appears abandoned and if so should be done so properly. (M. Alves - City of Modesto) FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through levee, 10 feet below crown. Flap gate located on the waterside (WS) end. Drain opening is located approximately 15 feet off the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 6, September 1961, (HLM 0.23), Drawing No. 07-04-1555, sheet(s) 1555/17 and 1555/55, reference station 915+00]. FS Date: 11/18/2016					

Photo 2 of 2 : UCIP\_FA\_2016\_50995\_38155.jpg



Flapgate has fallen off at WS toe.

LM Start	0.25	Rating **	M	Issue No.	16
LM End	0.28	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.541492 °	37.541408 °
				-121.097052 °	-121.097453 °
DWR ID	DWR_RD2091_01_s_2016_16				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Several fringer erosions and possible rodent holes along landward shoulder and slope.					

Photo 1 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00006.jpg



Looking east at fringer erosion on landward slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.25	Rating **	M	Issue No.	16 (cont)	
LM End	0.28	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			37.541492 °		37.541408 °
				-121.097052 °		-121.097453 °
DWR ID	DWR_RD2091_01_s_2016_16					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						
Several fringer erosions and possible rodent holes along landward shoulder and slope.						

Photo 2 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00007.jpg



Looking east at fringer erosion and possible rodent hole on landward slope.

LM Start	<b>0.25</b>	Rating **	M	Issue No.	<b>16 (cont)</b>
LM End	<b>0.28</b>	Issue Type +	Ma	Location *	LS

Photo 3 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00008.jpg



Looking east at fringer erosion on landward slope.

LM Start	<b>0.25</b>	Rating **	M	Issue No.	<b>16 (cont)</b>
LM End	<b>0.28</b>	Issue Type +	Ma	Location *	LS

Photo 4 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00009.jpg



Looking east at fringer erosion and possible rodent hole on landward slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown		<b>** Rating</b> A : Acceptable                      N : Not Inspected/Rated M : Minimally Acceptable        C : Corrected U : Unacceptable                  A/W : Acceptable but Monitor & Maintain		<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
--	--	---	--	---	--

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.25	Rating **	M	Issue No.	16 (cont)	
LM End	0.28	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			37.541492 °	37.541408 °	
				-121.097052 °	-121.097453 °	
DWR ID	DWR_RD2091_01_s_2016_16					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						
Several fringer erosions and possible rodent holes along landward shoulder and slope.						

Photo 5 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00010.jpg



Looking east at erosion and possible rodent hole on landward shoulder.

LM Start	0.63	Rating **	M	Issue No.	22
LM End	0.63	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.541220 °	37.541220 °
				-121.103880 °	-121.103880 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50997					
DS_ID:23161					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent since the flap gate appears to fully close.					
According to Mike Alvez, this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper					
abandonment/removal. The City is working at finding funds to pay for					
proper abandonment/removal of all the drainage structures through this					
levee. (O. Magana - DWR UCIP)01/29/2015 Appears abandoned and					
if so should be done so properly. (M. Alvez - City of Modesto)					
FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal					
drainage pipe through levee, 12 feet below crown. Flap gate and					
concrete headwall are located on the waterside (WS) end. [Additional					
Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M					
Manual Unit 6, September 1961, (HLM 0.64)].					
FS Date: 11/18/2016					

Photo 1 of 2 : UCIP\_FA\_2016\_50997\_38158.jpg



24-inch CMP on concrete headwall with flapgate on WS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.63	Rating **	M	Issue No.	22 (cont)
LM End	0.63	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.541220 °	37.541220 °
				-121.103880 °	-121.103880 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50997 DS_ID:23161 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent since the flap gate appears to fully close. According to Mike Alvez, this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Appears abandoned and if so should be done so properly. (M. Alvez - City of Modesto) FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through levee, 12 feet below crown. Flap gate and concrete headwall are located on the waterside (WS) end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 6, September 1961, (HLM 0.64)]. FS Date: 11/18/2016					

Photo 2 of 2 : UCIP\_FA\_2016\_50997\_38157.jpg



24-inch CMP on concrete headwall with flapgate on WS toe.

LM Start	4.59	Rating **	M	Issue No.	18
LM End	4.59	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.497390 °	37.497390 °
				-121.080370 °	-121.080370 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:43209 DS_ID:23165 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned and if so should be done so properly. FIELD_STRUCT_DESC: 36-inch corrugated metal pipe through levee 15.0 feet below crown. Abandoned concrete inlet box on the waterward slope of levee. 6'X5' Concrete distribution box at the landward toe. Originally included in the 1961 O&M manual. FS Date: 1/29/2015 2:27:42 PM					

Photo 1 of 2 : UCIP\_FA\_2016\_43209\_38211.jpg



Distribution box on LS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

## Reclamation District No. 2091 Chase

Looking south at several rodent holes on landward slope.

Page 10 of 14



## Reclamation District No. 2091 Chase

Page 11 of 14

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	5.20	Rating **	M	Issue No.	13 (cont)	
LM End	5.20	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Slope Stability			37.490756 °		37.490756 °
				-121.073410 °		-121.073410 °
DWR ID	DWR_RD2091_01_f_2016_13					
Comment Code						
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.						
Inspector Comment						
Vehicle traffic damaging slope on waterward and landward slope.						

Photo 2 of 2 : FA\_2016\_RD2091\_318\_13\_20161027\_00031.jpg



LM Start	5.66	Rating **	C	Issue No.	11
LM End	5.68	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.486090 °	37.485839 °
				-121.067612 °	-121.067357 °
DWR ID	DWR_RD2091_01_s_2015_11				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
The LMA has implemented a rodent program. No visible rodents and rodent holes.					

No Photos

LM Start	5.92	Rating **	M	Issue No.	12
LM End	5.92	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.485998 °	37.485998 °
				-121.063323 °	-121.063323 °
DWR ID	DWR_RD2091_01_f_2015_12				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 2 : FA\_2016\_RD2091\_318\_12\_20161027\_00033.jpg



Looking north at untrimmed tree at landward toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	5.92	Rating **	M	Issue No.	12 (cont)	
LM End	5.92	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Trim / Thin Trees			37.485998 °		37.485998 °
				-121.063323 °		-121.063323 °
DWR ID	DWR_RD2091_01_f_2015_12					
Comment Code						
T1 : Trim trees to at least five feet above ground level.						
Inspector Comment						

Photo 2 of 2 : FA\_2016\_RD2091\_318\_12\_20161027\_00032.jpg



Look southeast at untrimmed tree at landward toe.

LM Start	6.20	Rating **	M	Issue No.	19
LM End	6.20	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.486060 °	37.486060 °
				-121.058790 °	-121.058790 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:43221 DS_ID:23166 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: FIELD_STRUCT_DESC: *Removed* 36-inch corrugated metal pipe through levee 15.0 feet below crown. Slide gate in corrugated metal pipe riser on the waterward slope. Concrete distribution box at the landward toe. Slide gate on the landward end. Concrete standpipe on the waterward berm. Pump on pile stream. Originally included in the 1961 O&M manual. Pipe removed under Permit No. 4421. Design drawings available in Permit No. 4421. FS Date: 1/29/2015 2:31:08 PM					

Photo 1 of 2 : UCIP\_FA\_2016\_43221\_38215.jpg



Abandoned CMP riser on WS slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	6.20	Rating **	M	Issue No.	19 (cont)	
LM End	6.20	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			37.486060 °		37.486060 °
				-121.058790 °		-121.058790 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:43221 DS_ID:23166 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: FIELD_STRUCT_DESC: *Removed* 36-inch corrugated metal pipe through levee 15.0 feet below crown. Slide gate in corrugated metal pipe riser on the waterward slope. Concrete distribution box at the landward toe. Slide gate on the landward end. Concrete standpipe on the waterward berm. Pump on pile stream. Originally included in the 1961 O&M manual. Pipe removed under Permit No. 4421. Design drawings available in Permit No. 4421. FS Date: 1/29/2015 2:31:08 PM						

Photo 2 of 2 : UCIP\_FA\_2016\_43221\_38214.jpg



Concrete distribution box on LS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable  N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2016 Levee Inspection Results**

**Reclamation District No. 2091 Chase**

Waterway			Bank	Unit Miles
Unit No. 02 San Joaquin River				0.05
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			<b>M</b>	
Date of Inspection	-		10/26/2016 - 10/26/2016	
DWR Inspector	Richard Willoughby		Richard Willoughby	
Accompanied By				

**Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

*The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.*



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River		0.05	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.02	Rating **	M	Issue No.	5
LM End	0.02	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.482450 °	37.482450 °
				-121.051220 °	-121.051220 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50986 DS_ID:23175 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as last inspection this is a non-functional crossing with flap gate in the closed position. This crossing has been downgraded from Urgent to Non-Urgent no integrity issues were observed on the levee crown or slopes. According to Mike A. this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Flap gate rusted in-place and does not function. In closed position. (M. Alves - City of Modesto) FIELD_STRUCT_DESC: 24-inch corrugated metal drainage pipe through levee, 16.4 feet below the crown. Flap gate is located on the waterside (WS) toe. [Additional Reference(s): DWR Levee Log, 1992]. FS Date: 11/18/2016					

Photo 1 of 1 : UCIP\_FA\_2016\_50986\_38216.jpg



24-inch CMP with flapgate visible on WS toe.

LM Start	0.03	Rating **	C	Issue No.	1
LM End	0.03	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.482523 °	37.482523 °
				-121.051103 °	-121.051103 °
DWR ID	DWR_RD2091_02_s_2012_1				
Comment Code					
T2 : Thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River		0.05	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.05	Rating **	C	Issue No.	2
LM End	0.05	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.482815 °	37.482815 °
				-121.050849 °	-121.050849 °
DWR ID	DWR_RD2091_02_f_2012_2				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

LM Start	0.30	Rating **	M	Issue No.	4
LM End	0.30	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.541327 °	37.541327 °
				-121.097895 °	-121.097895 °
DWR ID	DWR_RD2091_02_f_2016_4				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : FA\_2016\_RD2091\_319\_4\_20161027\_00002.jpg



Looking south at untrimmed tree at landward slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---